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**Kamen et al.**(10) **Pub. No.: US 2022/0002169 A1**(43) **Pub. Date: Jan. 6, 2022**(54) **WATER VAPOR DISTILLATION  
APPARATUS, METHOD AND SYSTEM**(71) Applicant: **DEKA Products Limited Partnership,**  
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(57)

**ABSTRACT**

A fluid vapor distillation apparatus. The apparatus includes a source fluid input, and an evaporator condenser apparatus. The evaporator condenser apparatus includes a substantially cylindrical housing and a plurality of tubes in the housing. The source fluid input is fluidly connected to the evaporator condenser and the evaporator condenser transforms source fluid into steam and transforms compressed steam into product fluid. Also included in the fluid vapor distillation apparatus is a heat exchanger fluidly connected to the source fluid input and a product fluid output. The heat exchanger includes an outer tube and at least one inner tube. Also included in the fluid vapor distillation apparatus is a regenerative blower fluidly connected to the evaporator condenser. The regenerative blower compresses steam, and the compressed steam flows to the evaporative condenser where compressed steam is transformed into product fluid. The fluid vapor distillation apparatus also includes a control system.

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